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haps, it has not yet had time to extend itself over the face of the country.

I have observed that upon the northern coasts of Australia, the amount of the population upon a certain tract of country, is great or small in proportion to the quantity of *vegetable* food it produces. However abundant animal food may be, a toilsome search for edible roots gives almost constant occupation to a portion of every tribe. Women and children labour for hours together, with no other implement than a pointed stick, in following up the creeping stem of the wild yam through the earth until the root is arrived at, often at a depth of six or eight feet below the surface. A certain proportion of vegetable food appears, indeed to be absolutely necessary to their existence, and they willingly forego the use of animal food, if this more grateful diet can be obtained in sufficient abundance. Boiled rice, without any condiment, they will accept as their sole food for days together, and scarcely seem to wish for change.

It was the intention of Mr. Earl to have added to this paper his observations on the aborigines of the neighbouring islands of the Eastern Archipelago; but indisposition for some time prevented his accomplishing the task, and when scarcely recovered, he re-embarked for Australia. This will account for what may seem a rather abrupt termination of the above interesting article. We had hopes that Mr. Earl would at some future period continue these interesting ethnological notices; but grieved are we to state that these hopes have been frustrated by his death. He was drowned, by the wreck of the vessel in which he had taken his passage to Port Essington.—ED.

XII.—*Remarks on the Lakes of Benzerta, in the Regency of Tunis, made in May, 1845, by Lieut. SPRATT, H. M. S. Beacon, F.G.S. Communicated by Commander GRAVES, F.R.G.S., &c.*

THESE two extensive lakes, in the northern part of the Regency of Tunis, have hitherto been but little known; few modern travellers having visited them, and even those who have, or ventured to describe them from the report of the natives, have been led into many errors and given exaggerated accounts of their extent and depth; each apparently has copied the errors of his predecessor. Thus Lithgow, Shaw, and lately Sir G. Temple, have doubled the actual extent of these lakes, and added to their depth sevenfold.

These errors have doubtless arisen from two causes: viz. the difference between the Tunisian and English mile, which is nearly a third less in the former; and secondly, the ignorance of the natives themselves. This ignorance is somewhat strange, when it is known that the lakes are two valuable preserves of fish, from whence the populous town of Tunis is entirely supplied during a great part of the year, and the fish transported by camels every evening.

The lakes are rented from the Bey of Tunis for a sum nearly amounting to 4000*l.* per annum, by Ben Ayed, one of the wealthiest and most influential Arabs in the Regency, who has several boats upon the lakes; yet neither the proprietor nor the men constantly employed upon the fishery, possessed a correct knowledge of the waters, and we were led to expect from them, as well as from the above travellers, a depth varying from 10 to 50 fathoms.

The lakes have often been noticed by the ancient and middle-age authors, under the names of Hipponitus Lacus and Sisaræ Palus.

The Hipponitus lacus was the more northern and larger of the two lakes, and answers to that of Benzerta, taking its modern name from an important fortified town situated at its mouth. The Sisaræ Palus is now called the Lake of Gebel Ishkel, from a high and picturesque mountain rising from its southern shore, but which must have been formerly an island, as it is now separated from the plain by an extensive marsh.

The two lakes run in an E.N.E. and W.S.W. direction of each other, and are each about 8 geographical miles long. The Lake of Benzerta is $5\frac{1}{2}$ miles broad, whilst that of Gebel Ishkel is only $3\frac{1}{2}$; this latter is a remarkably turbid, shallow lake of fresh water; but the former is clear, and nearly as salt as the sea, with which it communicates.

The turbid state of the water in the Lake of Gebel Ishkel arises from the wasting of clay banks on its margin, and muddy streams flowing into it from the plain of Mata: the hills surrounding which, as well as the lake itself, with the exception of Gebel Ishkel, which is composed of marble and slate, appear to consist of marls and sandy strata; the wasting of these soft deposits being thus continually carried into this inner lake, it is consequently fast filling up, and is now only 8 feet deep. Notwithstanding it is so muddy, the water is remarkably sweet to drink, and esteemed by the Arabs as very wholesome.

Fish abound in the lake, principally barbel and a sort of hering, but they are insipid and never eaten by the natives. The grey mullet and bass, which frequent it to spawn, are very fine. Fresh-water shell-fish are rare in the lake, but I procured a species of unio from one of the streams flowing into it.



25'

9° 30'

35'

40'

25'

90

104

104

50

53

40

35

34

20'

26

Ras al Dhukhan

Ras al Kurk

13

22

19

6

6

8

9

8

4

Var 17° 30' W

15'

10'

Jebel Darilbagrad

Wadi Sidi Salla

Sidi Salla

Jebel Beshiwa

El Dheb

JEBEL ISHKEL LAKE

Fresh water

The Soundings of this Lake are in Feet

Jebel Ishkel
1720'





Jebel
Darilbagrad

El Dheb

Wadi
el down

3 5 JEBEL ISHKEL LAKE

8 Fresh water 7

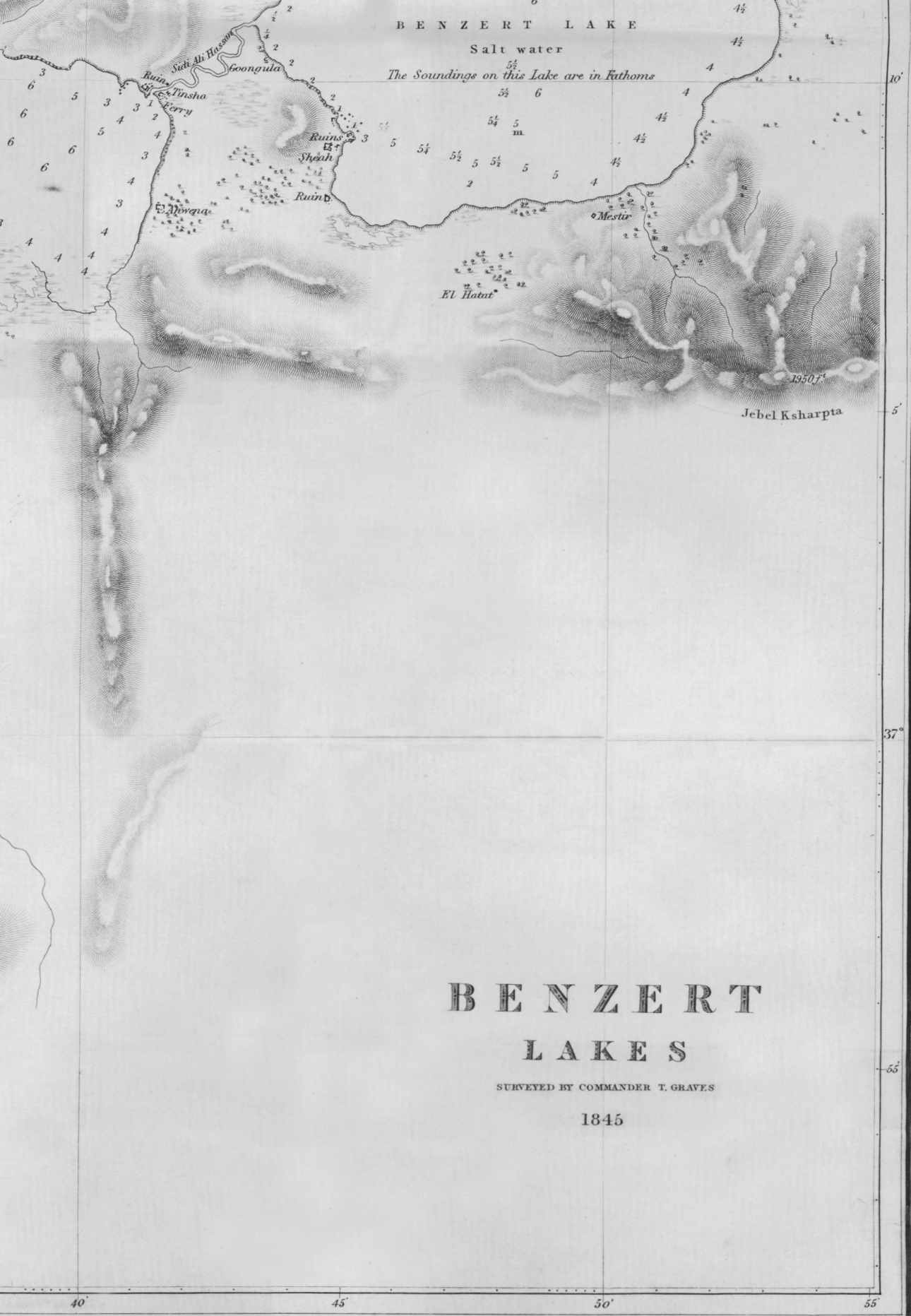
The Soundings of this Lake are in Feet

Jebel Ishkel
1721

Hot Springs

Mata

9°30' Long East of Greenwich



BENZERT
LAKES

SURVEYED BY COMMANDER T. GRAVES

1845

In some of the clay-banks along the north and east shore of the lake are abundance of marine fossils, principally a cardium, which, by the wasting of the cliffs, are washed along the shore, the sands of which in consequence present the singular appearance of a sea-beach encircling a fresh-water lake; and until I discovered the localities from whence they were derived, I was led to suppose that they had been living inhabitants of this lake at no very distant period of time, when of course the waters were salt; and the scarcity of fresh-water shells, leant to the idea of its recent conversion from a salt to a fresh lake.

The Lake of Gebel Ishkel communicates with that of Benzerta, by a meandering channel or river, through a low neck of land about 2 miles broad, which separates the two lakes from each other, and which is called Tinja or Tinsha.

The river is navigable for boats of not more than two feet draft of water, its general depth is 6 feet, and its breadth 25 yards; but at the entrance into the Lake of Gebel Ishkel there are shallows, with a very rapid current, against which our boat had great difficulty in contending.

Above the shallows there is a ferry, opposite the Marabout of Seedy Alle Hassan, which is completely enveloped by a small grove of trees. This spot appears also to have been the site of an ancient town of some importance, as there are considerable remains on both sides of the ferry. The character of the ruins is that of a late Roman or middle-age date, and one ruin, partly standing, appears to have been a Christian church.

Several detached ruins occur on the shore of both lakes, which appear to have been merely the fortified habitations of the landed proprietors, and are called Bourges by the Arabs; but the natives have a tradition, that the ruins of a considerable town exist beneath the lake of Benzerta, at the point of Sbeah on the south shore, where there are some massive Roman walls on the beach and rocks under water for several yards out into the lake, that give probability to the tradition.

The greatest depth of water in the Lake of Benzerta, is 8 fathoms, with an average of from 5 to 6 throughout. The channel by which it communicates with the sea is at its N.E. angle, and is about 4 miles in length, and half a mile broad, except near its mouth, where it is contracted into a narrow winding canal. In the wide channel, there is a depth of from four to seven fathoms, but in the intricate part between the fishery and the bar at the mouth of the canal, which in its windings is nearly a mile in length, there is from 2 to 10 feet water only. Across one part of the channel, there is a solid stone bridge of seven narrow arches, and again a little below it the channel is obstructed by rocks, said to be the foundation of another bridge.

The influx and reflux of the waters into the Lake of Benzerta appears, from the report of the natives, to be in no way influenced by, or indicative of, a tidal rise and fall of the Mediterranean, but to be due to the winds and rains only. During the winter months the current flows almost constantly out, owing to the great supply of fresh water which the Lake of Benzerta receives from the upper lake; an occasional rise of the sea above its usual standard during certain winds will then, for a short time, cause slack water, and sometimes a brief influx. During the summer months the streams which supply the fresh-water lake having become exhausted, the water ebbs and flows with every alternate rise and fall of the sea, which the daily change of land and sea-breeze produces. The water in this part of the lake is always clear, the matter brought down from the upper lake being deposited before it reaches the narrow outlet near the town. There is, consequently, no alluvial encroachment or filling up the mouth of the canal, which is important, in respect to any future attempt to deepen the channel, and open the lake as a harbour. The alluvial deposition takes place principally near the mouth of the Finsha, and along the west shore of the lake, where there are extensive shallows and two low islands that have risen from this accumulation. Besides Benzerta, there are two large built villages on the promontory of Schara, which was anciently the Hippos Prom.

This promontory, as well as the district around Benzerta, for three or four miles, is exceedingly fertile and beautiful, being laid out in large olive-groves, vineyards, open pasture and grain land, much resembling park scenery in England; and the oil produced is said to be little inferior to Florence oil. There are few trees growing to the south of the promontory of Schara, the country being naked and unfenced, and occupied principally by the wandering tribes of Arabs who live in tents, there being only one built town in the whole district, viz., that of Mata or Mahta, which appeared to be nearly as large as Benzerta, and surrounded by low mud walls.

The capabilities of the country do not however cease where the groves and the better sort of cultivation ceases; but, on the contrary, a rich soil covers the whole face of the country, and the hill summits are as capable of producing corn as the plains; neither is the country neglected, for this district around the lakes, and the valley of Mata is one of the most productive in grain in the regency.

The pastoral Arabs of the interior discourage and destroy as much as they can all spontaneous vegetation, and keep the mountains as bare as possible, which is done from two motives. They have thus the country comparatively free from wild animals,

and, having more available ground, they do not impoverish the soil by too frequent crops. The fields lie in fallow five or six years, and, of course, yield abundantly when tilled.

Locusts.—During our stay in the upper lake we witnessed one of those extraordinary visitations by which the labour and hopes of a season are frequently in a few hours destroyed throughout entire districts in this part of the world. A flight of locusts, brought by a strong hot S.E. wind, came upon us thick as snowflakes, both filling the air and covering the ground for miles. Myriads were destroyed in the lakes, or swept irresistibly into the sea. A flight of locusts is not, however, without its advantages to the natives, who esteem them as a great luxury when baked and dry. Large heaps were consequently exposed for sale in the markets of Tunis and Benzerta for some time after their visit.

Hot Springs.—At the eastern base of Gebel Ishkel there are four or five mineral springs, which are held in great repute for medicinal virtues by the natives, who resort to them almost daily, to bathe in small pools formed by hollowing out the sand round each jet which bubbles through the soil. These springs are salt, and of a temperature of about 110°; but the natives showed so much offence at our immersing our hands into the pools, that we were unable to ascertain it correctly. In every other respect we experienced the greatest civility from the native whose hut we chanced to fall in with, but the party of soldiers and fishermen from the town who were sent with us from Benzerta, frequently showed fear and mistrust when we were encamped on the shores of the upper lake, and represented the Arabs of that district as lawless and wild.

XIII.—*On the Mouths of the Jamoor River, Western Africa; being a Letter addressed by the Rev. JOHN CLARKE to the Rev. JOSEPH ANGAS, dated July 16, 1845: communicated by Mr. ANGAS.*

My last hasty scrawl was very imperfect, and in this I wish to give you further information, especially of the river Jamoor, which has been supposed hitherto to be only a branch of the Cameroons. From recent observation, and from all the information we obtain here, we conclude it is a distinct river, having its course from the east of the Cameroons Mountain, and emptying itself by at least four branches into the Bimbian and the Cameroons Creek. The following are the countries given us through which it runs to the sea:—1st, Bavi; 2nd, Balūm; 3rd, Molalle; 4th, 'M'bonjun; 5th, Molarigga; 6th, Munggo; 7th, Baribo (southern mouth); 8th, Ebonjo, Ganjjū, and Bimbia (the